

SPECIAL BRONZES FOR SPECIAL APPLICATIONS

#120 HIGH LEAD BRONZE

Formulated specifically for bearings that are difficult to lubricate or subject to high local heat, #120 High Lead is the ideal metal when lubrication is challenging, yet strength is required. The higher lead content (20%) of Magnolia's #120 High Lead Bronze allows the bearing to withstand a harsher environment, absorbing dirt, grit and other foreign matter that may otherwise damage the shaft. #120 High Lead has as much as **3 times** the lead content of SAE 660 and only $\frac{1}{3}$ the zinc content.

Magnolia's unique casting process eliminates the problems found in sand and centrifugal castings, assuring that the lead is evenly dispersed throughout the metal. #120 High Lead has been readily substituted for alloy CDA 938, 941, 943 and 945 applications.

TYPICAL CHEMICAL ANALYSIS

	COPPER	TIN	LEAD	ZINC
#120 High Lead	73-77%	5-7%	18-20%	<1%

TYPICAL PHYSICAL CHARACTERISTICS

TENSILE STRENGTH	YIELD POINT	BRINELL	ELONGATION IN 2"
28,000	16,000	55	10

COMPARE QUALITY

The alloys shown in these unretouched photomicrographs are both high leaded bronzes (20% lead). The obvious difference between them is the casting process used and the superior product that results. Magnolia's exclusive crystal control steel casting method assures completely uniform dendritic crystallization without segregation. The result is the perfect high leaded bronze bearing metal.

The bottom photo illustrates the quality difference in bronze cast in sand without Magnolia's exclusive crystal control casting process. Notice the conglomerate sponge structure showing black segregated lead and white copper/tin crystals. This product is definitely inferior in quality. Absolutely none of Magnolia bronze products are cast in sand. This eliminates segregated elements, trapped gases and internal faults.

Why just hope to get a good casting when Magnolia will guarantee one?

PHOTOMICROGRAPHS
ENLARGED 500 DIAMETERS



#120 HIGH LEAD BRONZE
SAND CAST HIGH LEAD BRONZE

- Steel-cast bronze up to 34" O.D.
- Continuous cast bar up to 12 ½" O.D.
- Machined blanks or finished to print



MAGNOLIA CARRIES HARD-TO-FIND ALLOYS

MAGNOLIA'S AA HARD CDA 903

More commonly known as CDA 903, SAE 620 or Navy "G" metal, Magnolia's AA Hard Bronze is recommended for heavy duty applications where hardness and durability are required. Containing 88% copper, 8% tin and 4% zinc, AA Hard Bronze has the advantage of high strength, yet it is not as likely to score the shaft as an aluminum or manganese bronze will. AA Hard Bronze is used extensively in gears, rings and impellers, as well as bushings and bearings.



Magnolia stocks dust seals
for all Banbury® mixers.



Magnolia also casts and carries CDA 936 (Modified SAE 64), CDA 937 (Cert. 64) and SAE 63. In addition to these standard alloys, Magnolia is capable of casting most tin bronzes and leaded tin bronzes on a special order basis. We will be glad to quote promptly.

INVENTORY:

Magnolia maintains over 3 million pounds of steel cast and continuous cast inventory specifically to handle RUSH and BREAKDOWN situations. We have built our reputation on service since 1886.

QUALITY:

Guaranteed by our Jarrell-Ash® Atom Computer 7000 Spectrometer, Magnolia's quality control procedure has resulted in returns of less than ½ of 1% of all bronze shipped over the last 10 years.

SERVICE:

A full service machine shop, our own foundry, an excellent product and qualified staff allow us to provide the best possible service.

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